

CLAIMS

1. Steering apparatus for steering wheels (1) of a vehicle (2), comprising support means (4) arranged for supporting said wheels (1), driving means (27) arranged for rotating said support means (4) around respective longitudinal axis means (Z) and connecting means arranged for connecting said driving means (27) with said support means (4), characterised in that said connecting means comprises transmission gear means (26).
2. Apparatus according to claim 1, wherein said transmission gear means (26) comprises gear wheel means (10) associated with said support means (4) and further gear wheel means (15) connected with said driving means (27) and engaging with said gear wheel means (10).
3. Apparatus according to claim 2, wherein said further gear wheel means (15) shows a pitch diameter greater than the pitch diameter of said gear wheel means (10).
4. Apparatus according to claim 2, or 3, wherein said gear wheel means (10) and said further gear wheel means (15) show respective axes of rotation mutually parallel.
5. Apparatus according to claim 2, or 3, wherein said gear wheel means (10) and said further gear wheel means (15) show respective axes of rotation mutually concurrent.
6. Apparatus according to claim 2, or 3, wherein said gear wheel means (10) and said further gear wheel means (15) show respective axes of rotation mutually non-intersecting.
7. Apparatus according to any of claims 2 to 6, wherein said further gear wheel means comprises a sector gear (15).
8. Apparatus according to claim 2, wherein said transmission gear means (26) comprises gear wheel means (10) associated

with said support means (4) and worm gear means, connected with said driving means (27) and engaging with said gear wheel means (10).

9. Apparatus according to any of the preceding claims, wherein said driving means (27) comprises electric motor means (13).
10. Apparatus according to any of claims 1 to 8, wherein said driving means (27) comprises hydraulic motor means.
11. Apparatus according to any of claims 1 to 8, wherein said driving means comprises actuator means (18; 21; 28)..
12. Apparatus according to claim 11, when appended to any of claims 2 to 7, wherein said connecting means further comprises link means arranged for connecting said actuator means (18; 21; 28) with said further gear wheel means (15).
13. Apparatus according to claim 12, wherein said link means comprises lever means (16) pivotally connected with said further gear wheel means (15) in eccentric position.
14. Vehicle, comprising steered wheel means (1) and steering means (3) arranged for controlling said steered wheel means (1), said steering means (3) comprising support means (4) arranged for supporting said steered wheel means (1), driving means (27) arranged for rotating said support means (4) around respective longitudinal axis means (Z) and connecting means arranged for connecting said driving means (27) with said support means (4), characterised in that said connecting means comprises transmission gear means (26).
15. Vehicle according to claim 14, wherein said transmission gear means (26) comprises gear wheel means (10) associated with said support means (4), and further gear wheel means

(15) connected with said driving means (27) and engaging with said gear wheel means (10).

16. Vehicle according to claim 15, wherein further gear wheel means (15) shows a pitch diameter greater than the pitch diameter of said gear wheel means (10).
17. Vehicle according to claim 15, or 16, wherein said gear wheel means (10) and said further gear wheel means (15) show respective axes of rotation mutually parallel.
18. Vehicle according to claim 15, or 16, wherein said gear wheel means (10) and said further gear wheel means (15) show respective axes of rotation mutually concurrent.
19. Vehicle according to claim 15 or 16, wherein said gear wheel means (10) and said further gear wheel means (15) show respective axes of rotation non-intersecting.
20. Vehicle according to any of claims 15 to 19, wherein said further gear wheel means comprises a sector gear (15).
21. Vehicle according to claim 15, wherein said transmission gear means (26) comprises gear wheel means (10) associated with said support means (4), and worm gear means connected with said driving means (27) and engaging with said gear wheel means (10).
22. Vehicle according to any of claims 14 to 21, wherein said steered wheel means (1) comprises a first steered wheel (1') and a second steered wheel (1'').
23. Vehicle according to any of claims 14 to 22, wherein said driving means (27) comprises motor means (13).
24. Vehicle according to claim 23, wherein said motor means comprises electric motor means (13).
25. Vehicle according to claim 23, wherein said motor means comprises hydraulic motor means.

26. Vehicle according to any of claims 23 to 25, when claim 23 is appended to claim 22, wherein said motor means (13) comprises a first motor (13) associated with said first turning wheel (1') and a second motor (13) associated with said second turning wheel (1'').
27. Vehicle according to claim 26, and further comprising electronic command and control means arranged for actuating said first motor (13) and said second motor (13) so as to coordinate the relative rotation of said first steered wheel (1') and said second steered wheel (1'').
28. Vehicle according to any of claims 14 to 22, wherein said driving means comprises actuator means (18; 21; 28).
29. Vehicle according to claim 28, when claim 28 is appended to any of claims 15 to 21, or to claim 22 when appended to any of claims 15 to 21, wherein said connecting means further comprises link means arranged for connecting said actuator means (18; 21; 28) with said further gear wheel means (15).
30. Vehicle according to claim 29, wherein said link means comprises lever means (16) pivotally connected with said further gear wheel means (15) in eccentric position.
31. Vehicle according to any of claims 28 to 30, when claim 28 is appended to claim 22, wherein said actuator means comprises a first actuator (18) associated with said first steered wheel (1') and a second actuator (18) associated with said second steered wheel (1'').
32. Vehicle according to claim 31, and further comprising electronic command and control means arranged for actuating said first actuator (18) and said second actuator (18) so as to coordinate the relative rotation of

said first steered wheel (1') and said second steered wheel (1'').

33. Vehicle according to any of claims 28 to 30, when claim 28 is appended to claim 22, wherein said actuator means comprises an actuator (21; 28) suitable for simultaneously controlling, via said link means, said first steered wheel (1') and said second steered wheel (1'').